

Use of isochinoline-oxazoline ligand in heterogenous catalysis

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Ligands bearing an oxazoline moiety in combination with palladium metal are an efficient catalytical system for Hayashi-Miyaura reaction, the addition of boronic acids to an electron-deficient double bond [1]. Hayashi-Miyaura addition gives access to useful nitro compounds with a tertiary stereocenter, which can be taken advantage of in a further synthesis [2].

One of the most successful works describing Hayashi-Miyaura addition of arylboronic acids to β -nitrostyrenes has been published by *He et al* [3]. They described the use of oxazoline-isoquinoline ligand in combination with palladium(II) trifluoroacetate as an efficient catalyst [3].

This work focuses on the above-mentioned catalytic system. Copolymerization strategy was chosen and a ligand bearing a styryl moiety was designed and prepared. Thusly prepared ligand was copolymerised, and several copolymers were prepared. Effect of the copolymer composition and the way of preparation on catalytical activity and enantioselectivity for the addition of arylboronic acids to β -nitrostyrenes are discussed in this work.

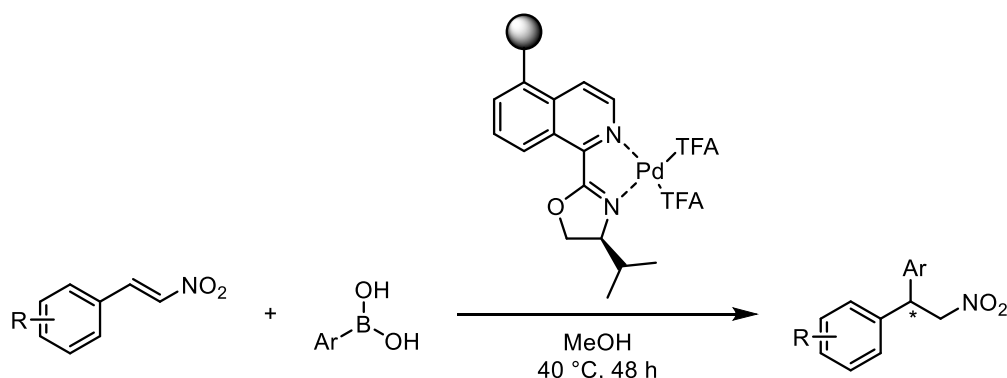


Figure 1. Addition of arylboronic acids to β -nitrostyrenes

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